

REMARKS

Prior to entry of this paper, Claims 1-20 were pending. Claims 1-20 were rejected. In this paper, Claims 1, 7, 13 and 19 are amended; no claims are cancelled or added. Claims 1-20 are currently pending. No new matter is added by way of this amendment. For at least the following reasons, Applicants respectfully submit that each of the presently pending claims is in condition for allowance.

Rejection of Claims 7-12 under 35 U.S.C. § 112

The Claims identified above in this subsection were rejected under 35 U.S.C. § 112. The Office Action states, on page 2, “[t]here is insufficient antecedent basis for this limitation in the claim. Specification does not define [] computer readable medium.” (Emphasis added.) It is not clear to the applicants what the ground(s) for rejection is (are). As the Examiner appreciates, even though “insufficient antecedent basis” is used in MPEP (for e.g., see MPEP 608.01(g)) to refer to lack of support in the detailed description, in practice this expression typically refers to the recitation of a term in a claim wherein the term was not previously introduced in the same claim, even though there is generally support for the term in the specification. In contrast, lack of support in the specification is a ground for rejection under 35 U.S.C. § 112 where support for the term in the specification is deemed lacking. Accordingly, in practice, the foregoing are two distinct grounds for rejection neither of which is proper for Claims 7-12, as discussed below.

First, regarding the insufficient antecedent basis ground of rejection, the Office Action states that “Claim[s] 7-12 [] recite[] the limitation ‘computer readable medium’ in line 1.” However, none of the unamended claims identified in this subsection include this language. For example, Claim 7, as previously presented, recites: “computer readable storage media ...” (emphasis added.) Therefore, applicants respectfully submit that the rejection of these claims on this ground is improper and request the withdrawal of the same.

Second, regarding support for “computer readable storage medium” in the specification, applicants attorney respectfully submits that “computer readable storage media” in addition to being well known to one skilled in the relevant arts and as such, is supported starting on Page 4, line 19,

through Page 5, line 3. Clearly, different types of computer readable storage media are discussed, including CD-ROM, hard disks, and Zip drives. Accordingly, applicants respectfully request the withdrawal of the rejections of Claims 7-12 on this ground.

Rejection of Claims 1-20 under 35 U.S.C. § 102

Claims identified above in this subsection were rejected under 35 U.S.C. 102 (e) as being anticipated by Blumenau et al. (U.S. Patent No. 6,799,255, hereinafter “Blumenau-1”). Applicants respectfully disagree for the reasons set forth below.

Amended independent Claim 1 recites, in its entirety:

1. A method comprising:
detecting attachment of a shared resource to a server;
automatically querying if the shared resource is associated with **a share indicator stored at the shared resource**;
applying share allocation defined by the share indicator **if the share indicator is present at the shared resource**; and
if the share indicator is stored separate from the shared resource,
automatically creating the share indicator, that enables identification of the shared resource, and automatically allocating sharing of the shared resource.
(Emphasis added.)

Blumenau-1 does not disclose, teach, or suggest “automatically querying if the shared resource is associated with a share indicator stored at the shared resource,” and “applying share allocation defined by the share indicator if the share indicator is present at the shared resource”, as recited in amended Claim 1. Blumenau-1 discloses a Fiber Channel network having a login process via which a “domain controller” of the fabric “assigns temporary IDs” to all the nodes that become known to it, and reports to the ports that it has found the temporary IDs assigned to them. Blumenau-1 further discloses that “[d]uring this fabric login process, a ‘name server’ of the fabric may build a table of the WWNs of the ports that are known to the fabric and their corresponding temporary IDs.” (Col. 12, lines 36-42; emphasis added.) Two features distinguish the disclosures of Blumenau-1 from the features recited in amended Claim 1 as discussed below.

One, Blumenau-1 does not disclose “automatically querying *if* the shared resource is associated with a share indicator stored at the shared resource”, as recited in amended Claim 1. (Emphasis added.) Rather, Blumenau-1 discloses that the domain controller “assigns temporary IDs to all nodes that become known to it”, *without regard to whether* “the shared resource is associated with a share indicator stored at the shared resource”, as recited in amended Claim 1. Blumenau-1 discloses that such assignment of temporary IDs to all nodes are done *without first querying* whether a share indicator exists on the shared resource. Blumenau-1 *does not observe such condition* (i.e., whether the shared resource is associated with a share indicator) before assigning IDs, but rather assigns such temporary IDs unconditionally and as a matter of course during the fabric login process.

Two, the temporary IDs assigned by the domain controller as disclosed by Blumenau-1 are not the same as a share indicator stored at the shared resource. Those skilled in the art will appreciate that a domain controller is typically a software program running on a server used for network communications and management. The domain controller is not the same as a shared resource just attached to and detected by the server. Additionally, Blumenau-1 discloses that “the memory 77 of the port adapter 35 stores information defining a correspondence between hosts in the data processing system and the set of volumes accessible to each host through the port adapter. For example, a volume access table 80 and volume lists 81 are stored in the memory 77.” (Col. 14, lines 25-31; emphasis added.) Figure 4 clearly shows that the volume access table 80 resides in the port adapter memory 77, in contrast to “a share indicator stored at the shared resource”, as recited in amended Claim 1. Also as clearly shown in Figure 1 of Blumenau-1, the port adapters 35-38 are distinct from the storage devices 28-31.

Claims 2-6 depend from amended Claim 1 and are submitted to be allowable for at least the same reasons discussed above with respect to amended Claim 1.

Amended Claim 7 recites features substantially similar to amended Claim 1, in relevant portions, and is submitted to be allowable for at least the same reasons discussed above with respect to amended Claim 1.

Claims 8-12 depend from amended Claim 7 and are submitted to be allowable for at least the same reasons discussed above with respect to amended Claim 7.

Amended Claim 19 recites, *inter alia*: “if the device is determined to be an unknown device, automatically creating a share indicator on the unknown device” (emphasis added.) As discussed above with respect to amended Claim 1, Blumenau-1 does not disclose, teach, or even remotely suggest “automatically creating a share indicator on the unknown device”. Blumenau-1 discloses a Fiber Channel network having a login process via which a “domain controller” of the fabric “assigns temporary IDs” to all the nodes that become known to it, and reports to the ports that it has found the temporary IDs assigned to them. Blumenau-1 does not disclose “determining if the device is one of the plurality of known devices”, as recited in amended Claim 19, but rather discloses that the domain controller proceeds with assigning temporary IDs to all nodes, regardless of whether such nodes are known or not. Additionally, Blumenau-1 does not disclose “creating a share indicator on the unknown device”, but rather discloses a volume access table 80 on the port adapters 35-38, as distinct from storage devices 28-31. Therefore, amended Claim 19 is submitted to be allowable for at least these reasons.

Claim 20 depends from amended Claim 19 and is submitted to be allowable for at least the same reasons discussed above with respect to amended Claim 19.

Rejection of Claims 3, 6, 9, and 12 under 35 U.S.C. § 103

Claims identified above in this subsection were under 35 U.S.C. 103 (a) as being unpatentable by Blumenau -1 in view of Blumenau et al. (U.S. Patent No. 6,665,714, hereinafter “Blumenau -2”).

As noted above, Claims 3 and 6, and Claims 9 and 12 depend from amended Claims 1 and 7, respectively, and are submitted to be allowable for at least the reasons discussed above with respect to amended Claims 1 and 7. As discussed above, Blumenau-1 does not disclose, teach, or suggest “automatically querying if the shared resource is associated with a share indicator stored at the shared resource,” and “applying share allocation defined by the share indicator if the share indicator is present at the shared resource”, as recited in amended Claim 1. Blumenau-2 fails to supply the teachings missing from Blumenau-1. Blumenau-2 discloses a method and a system for managing storage in a storage system (Abstract.) Blumenau-2 further discloses “a configuration

table to store configuration data identifying which of a plurality of devices coupled to the storage system are authorized to access each of the plurality of volumes ..." (Col. 2, lines 6-9.) Therefore, Claims 3, 6, 9, and 12 are submitted to be allowable for at least these reasons.

Rejection of Claims 13, 14, 17, and 18 under 35 U.S.C. § 103

Claims identified above in this subsection were rejected under 35 U.S.C. 103 (a) as being unpatentable by Blumenau -1 in view of Russell (U.S. Patent No. 5,841,991, hereinafter "Russell"). Applicants respectfully disagree with this ground of rejection for at least the reasons set forth below.

Amended Claim 13 recites, *inter alia*:

a memory coupled to the processor to store a shared resource table to identify share allocation of shared devices coupled to the system, wherein if an **unknown storage free device** is coupled to the system, the processor automatically creates a share file in the shared resource table that enables identification and automatically allocates sharing of the unknown storage free device. (Emphasis added.)

As acknowledged by the Office Action, on Page 11, Blumenau-1 does not disclose a storage free device. Russell fails to supply the teachings missing from Blumenau-1. The detection mechanism of nodes attached to a Fiber Channel disclosed by Blumenau-1 as the fabric login process (Blumenau-1, Col. 12, lines 29-56) does not apply to storage free devices, such as printers, as the nodes are assigned temporary IDs and are further listed in a volume access table 80 (Blumenau-1, Col. 14, lines 55-65) based on storage characteristics, such as volume list, volume name, etc. Russell discloses a MAC address storage method on remote network nodes and does not disclose detection or allocation of shared resources (Abstract.) As such, Blumenau-1 and Russell, singly or in any motivated combination, do not disclose, teach, or suggest a method of identifying an unknown storage free device by creating a share file in the shared resource table "that enables identification and automatically allocates sharing of the unknown storage free device", as recited in amended Claim 13. Even if the teachings of Russell disclosing printers were combined with the teachings of Blumenau-1 disclosing the fiber login process, the result would not disclose the features recited in amended Claim 13 because the methods disclosed by Blumenau-1 would not be

applicable to storage free devices, as noted above. Therefore, amended Claim 13 is submitted to be allowable for at least the reasons discussed above.

Claims 14-18 depend from amended Claim 13 and are submitted to be allowable for at least the reasons discussed above with respect to amended Claim 13.

Rejection of Claim 15 under 35 U.S.C. § 103

Claim 15 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Blumenau -1, Russell in view of Blumenau -2". Applicants respectfully disagree with this ground of rejection for the reasons set forth below.

Claim 15 depends from amended Claim 13 and is submitted to be allowable for at least the reasons discussed above with respect to amended Claim 13. As discussed above with respect to amended 13, Blumenau-1 and Russell, singly or in any motivated combination do not disclose the features recited in amended Claim 13. Blumenau -2 fails to supply the teachings missing from Blumenau -1 and Russell. Blumenau-2 discloses "a configuration table to store configuration data identifying which of a plurality of devices coupled to the storage system are authorized to access each of the plurality of volumes ..." (Col. 2, lines 6-9.) Blumenau-2 does not disclose a storage free device. Accordingly, Claim 15 is submitted to be allowable.

Rejection of Claim 16 under 35 U.S.C. § 103

Claim 16 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Blumenau -1 in view of Fisher (U.S. Patent No. 6,513,101, hereinafter "Fisher".) Applicants respectfully disagree with this ground of rejection for the reasons set forth below.

As noted above, Claim 16 depends from amended Claim 13 and is submitted to be allowable for at least the reasons discussed above with respect to amended Claim 13. As acknowledged by the Office Action, on Page 11, Blumenau-1 does not disclose a storage free device. Fisher fails to supply the teachings missing from Blumenau-1. Fisher discloses "a data storage library ... for

expiring logical volumes in response to expiration selection from a host” (Abstract.) Fisher does not disclose a method of identifying an unknown storage free device by creating a share file in the shared resource table “that enables identification and automatically allocates sharing of the unknown storage free device”, as recited in amended Claim 13 from which Claim 16 depends. Therefore, Claim 16 is submitted to be allowable.

Rejection of Claim 20 under 35 U.S.C. § 103

Claim 20 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Blumenau -I in view of Fisher.) Applicants respectfully disagree with this ground of rejection for the reasons set forth below.

As noted above, Claim 20 depends from amended Claim 19 and is submitted to be allowable for at least the reasons discussed above with respect to amended Claim 19. As discussed above with respect to amended Claim 19, Blumenau -I does not disclose “if the device is determined to be an unknown device, automatically creating a share indicator on the unknown device”, as recited in amended Claim 19 (emphasis added.) Fisher fails to supply the teachings missing from Blumenau -I. Fisher discloses “a data storage library ... for expiring logical volumes in response to expiration selection from a host” (Abstract.) Therefore, Claim 20 is submitted to be allowable.

CONCLUSION

It is respectfully submitted that each of the presently pending claims (Claims 1-20) is in condition for allowance and notification to that effect is requested. Examiner is invited to contact the Applicants' representative at the below-listed telephone number if it is believed that the prosecution of this application may be assisted thereby. Although only certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentable. Applicant reserves the right to raise these arguments in the future.

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